

**Remarks**

This Application has been carefully reviewed in light of the Office Action mailed January 20, 2006. Applicants appreciate the Examiner's consideration of this Application and respectfully provide these remarks. Although Applicants believe that all claims are allowable without amendment, Claims 1 and 15 have been amended and Claims 7, 12-14, and 21 have been cancelled. Applicants have also amended the Abstract. Applicants respectfully request reconsideration and allowance of all pending claims.

**The Abstract as Amended Does Not Exceed 150 Words**

The Examiner has objected to the Abstract on the basis of overall length. Applicants have amended the Abstract to address the Examiner's concerns. Applicants respectfully request the Examiner to withdraw the objection to the Abstract.

**Claims 1-6, 8-9, 15-20, and 22-23 are Allowable over *Voudouris***

The Examiner rejects Claims 1-9, 12 and 15-23 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,368,105 B1 issued to Voudouris, et al. ("*Voudouris*"). Applicants respectfully traverse.

*Voudouris* fails to disclose, teach, or suggest multiple elements recited in Claim 1, as amended. Claim 1 is allowable for at least this reason. The Examiner has acknowledged that *Voudouris* fails to disclose that "the second flange extends in the lingual direction past the first flange." (Office Action, Page 5). Accordingly, *Voudouris* necessarily fails to disclose, teach, or suggest "***the second flange . . . extending in the lingual direction past the first flange to provide an extended bite plate adapted to contact an occlusal surface of an opposing tooth in the person's opposing arch to limit movement of the tooth toward the opposing tooth,***" as recited in Claim 1. Claim 1 is allowable for at least this reason.

As another example, *Voudouris* also fails to disclose "***the second flange . . . comprising a central slot through which the third portion of the retaining clip moves about the central portion of the second flange,***" as recited in Claim 1. In contrast, *Voudouris* discloses that clip 20 passes over the lingual surface of the flange rather than through a central slot. (See e.g., Figure 1). Claim 1 is allowable for at least this additional reason.

Claim 15 is allowable for reasons analogous to those discussed above with respect to Claim 1.

Dependent Claims 2-6, 8-9, 16-20, and 22-23 are allowable at least because they depend from allowable independent Claims 1 and 15.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 1-6, 8-9, 15-20, and 22-23.

**Claims 10 and 11 are Allowable over the Proposed  
*Voudouris-Hanson '486* Combination**

The Examiner rejects Claims 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over *Voudouris* in view of U.S. Patent No. 5,906,486 issued to Hanson ("*Hanson '486*"). Applicants respectfully traverse.

Dependent Claims 10 and 11 depend from independent Claim 1. With respect to elements of independent Claim 1, the Examiner relies on the disclosure of *Voudouris* and cites portions of *Hanson '486* as allegedly disclosing certain additional elements recited in these dependent claims. However, as shown above, *Voudouris* fails to disclose, teach, or suggest each and every limitation recited in independent Claim 1. Applicants respectfully submit that these inadequacies of *Voudouris* are not remedied by the proposed combination of *Voudouris* with *Hanson '486*.

*Hanson '486* discloses a self-ligating bracket for use on the labial surface of a tooth and having a "labially opening arch wire slot." (Column 6, Line 66 - Column 7, Line 4). The "labially opening arch wire slot" is defined between an occlusal portion and a gingival portion 22. (See *e.g.*, Figure 3). The bracket includes a spring ligating member 34 that has a semi-circular occlusal portion 40 and closes over the "labially opening arch wire slot" from the occlusal direction. (See Figure 3; and Column 7, Lines 10-13 and 48-51). The gingival portion 22 extends further from the base of the bracket than the occlusal portion of the bracket and the spring ligating member 34 wraps around the occlusal portion of the bracket to

close the “labially opening arch wire slot.” (*See e.g.*, Figure 3). In one embodiment, the spring ligating member 34 covers the occlusal portion of the bracket in the mesial-distal direction. (*See e.g.*, Figure 2) In an alternative embodiment, the spring ligating member 34 spans between two tie wings 22. (Figures 9 & 10; Column 10, Lines 26-29). However, in neither embodiment does the occlusal portion extend further from the base than the gingival portion of the bracket. Nor does the occlusal portion of the bracket comprise a slot through which the spring ligating member 34 moves.

Assuming, despite the fact that *Hanson '486* discloses a labial bracket as opposed to a lingual bracket, that any portion of the *Hanson '486* bracket could properly be construed as one or more elements recited in Claim 1, which Applicants do not concede, the gingival portion of the *Hanson '486* bracket must correspond with the “first flange,” recited in Claim 1, and the occlusal portion of the *Hanson '486* bracket must correspond with the “second flange . . . separated from the first flange generally vertically toward the person’s occlusal plane,” as recited in Claim 1. However, as with *Voudouris*, even with this assumption, *Hanson '486* still fails to disclose, teach, or suggest at least “***the second flange . . . extending in the lingual direction past the first flange to provide an extended bite plate adapted to contact an occlusal surface of an opposing tooth in the person’s opposing arch to limit movement of the tooth toward the opposing tooth***” and “***the second flange . . . comprising a central slot through which the third portion of the retaining clip moves about the central portion of the second flange,***” as recited in Claim 1.

Therefore, even if *Voudouris* could properly be combined with *Hanson '486* as the Examiner proposes, which applicants do not concede, this combination would still fail to disclose, teach, or suggest each and every limitation recited in independent Claim 1, from which dependent Claims 10 and 11 depend. Dependent Claims 10 and 11 are allowable for at least these reasons.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 10 and 11.

**The Examiner's rejection of Claim 13 is Moot**

The Examiner rejects Claim 13 under 35 U.S.C. § 103(a) as being unpatentable over *Voudouris* in view of U.S. Patent No. 5,586,882 issued to Hanson ("*Hanson '882*"). In light of Applicants cancellation of Claim 13, this rejection is moot.

**The Examiner's rejection of Claim 14 is Moot**

The Examiner rejects Claim 14 under 35 U.S.C. § 103(a) as being unpatentable over *Voudouris* in view of U.S. Patent No. 4,337,037 issued to Kurz ("*Kurz*"). In light of Applicants cancellation of Claim 13, this rejection is moot. However, to the extent the Examiner may reject Claim 1 as being unpatentable over the proposed *Voudouris-Kurz* combination, Applicants respectfully traverse.

*Kurz* does not disclose a "self-ligating" orthodontic bracket. Rather, *Kurz* discloses a lingual orthodontic bracket with an "inclined bite plane." (Column 2, Lines 33-41). The "inclined bite plane" is formed at an acute angle relative to the base of the bracket. (*See e.g.*, Figure 2B). According to *Kurz*, the "inclined bite plane" (also referred to as the "angled bite plane") is designed to "prevent the mandibular teeth from shearing off the brackets." (Column 3, Lines 2-5). This purpose is accomplished by preventing the occlusal surface of the mandibular teeth from contacting the bracket. Instead, the acute angle of the "inclined bite plane" causes the labial surface of the mandibular tooth to contact the bracket and apply a horizontal force against the "lingual surface" of the maxillary tooth. (Column 2, Lines 37-41). Thus, the "inclined bite plane" disclosed in *Kurz* allows the mandibular tooth to slide against the bracket without applying a shearing force. Accordingly, *Kurz* teaches away from a self-ligating orthodontic bracket comprising a second flange "extending in the lingual direction past the first flange to provide *an extended bite plate adapted to contact an occlusal surface of an opposing tooth in the person's opposing arch to limit movement of the tooth toward the opposing tooth,*" as recited in Claim 1. Accordingly, even if *Voudouris* could properly be combined with *Kurz* as the Examiner proposes, which Applicants do not concede, this combination would still fail to disclose, teach, or suggest each and every limitation recited in independent Claim 1.

Similarly, because *Kurz* does not disclose a “self-ligating” orthodontic bracket, *Kurz* does not disclose a flexible retaining clip adapted to secure an orthodontic wire in a self-ligating manner. Therefore, it follows that *Kurz* does not disclose “*the second flange . . . comprising a central slot through which the third portion of the retaining clip moves about the central portion of the second flange,*” as recited in Claim 1. For at least this additional reason, the proposed *Voudouris-Kurz* combination fails to disclose, teach, or suggest each and every limitation in Claim 1.

**Claims 24-32 and 35-43 are Allowable over the Proposed  
*Voudouris-Takemoto* Combination**

The Examiner rejects Claims 24-32 and 35-43 under 35 U.S.C. § 103(a) as being unpatentable over *Voudouris* in view of U.S. Patent No. 6,264,468 B1 issued to Takemoto (“*Takemoto*”). Applicants respectfully disagree.

*Takemoto* discloses a “lingual straight archwire” and a lingual orthodontic bracket for use with such an archwire. (Column 4, Lines 9-21). The “lingual straight archwire” is “ligated to the slot of the bracket with a thin wire or rubber band in a conventional fashion.” (Column 6, Lines 26-28). *Takemoto* does not disclose a self-ligating lingual orthodontic bracket as recited in Claim 24. *Voudouris*, on the other hand, discloses a self-ligating labial bracket and specifically teaches away from brackets that utilize conventional ligation techniques. (See Column 1, Line 56 - Column 2, Line 14). Thus, *Voudouris* teaches away from any combination with the conventional bracket disclosed in *Takemoto* and negates the required teaching, suggestion, or motivation to combine the references.

Nevertheless, even if *Voudouris* could be properly combined with *Takemoto* as proposed by the Examiner, the proposed combination would still fail to disclose, teach, or suggest each and every element recited in Claim 24. For example, neither *Voudouris* nor *Takemoto* disclose a “second flange extending generally vertically from the first flange in a direction generally toward the person’s occlusal plane . . . [with] *a clip slot formed generally vertically through the second flange,*” as recited in Claim 24. *Voudouris* does not disclose a “second flange extending generally vertically from the first flange in a direction generally toward the person’s occlusal plane” and, therefore, cannot disclose “*a clip slot formed*

*generally vertically through the second flange,”* as recited in Claim 24. Similarly, *Takemoto* does not disclose a slot formed through any of the bracket flanges and, therefore, also cannot disclose “*a clip slot formed generally vertically through the second flange,”* as recited in Claim 24. Claim 24 is allowable for at least this reason.

In addition, even if *Voudouris* could be properly combined with *Takemoto* as proposed by the Examiner, the proposed combination would still also fail to disclose:

*a flexible retaining clip adapted to secure the orthodontic wire within the wire slot in a self-ligating manner,* the retaining clip: comprising *a first portion* positioned generally vertically and *adapted to move generally vertically within the clip slot* toward or away from the occlusal plane, *a second portion extending generally horizontally from the first portion in a generally labial direction about at least a central portion of the third flange,* and a third portion extending generally vertically from the second portion in a direction generally away from the occlusal plane about at least the central portion of the third flange,

as recited in Claim 24. As discussed above, *Voudouris* does not disclose “a clip slot formed generally vertically through the second flange;” and the Examiner acknowledges that *Voudouris* “does not disclose a third flange.” (Office Action, Page 6). Therefore, *Voudouris* cannot disclose a flexible clip comprising “*a first portion . . . adapted to move generally vertically within the clip slot;*” or “*a second portion extending generally horizontally from the first portion in a generally labial direction about at least a central portion of the third flange,”* as recited in Claim 24. Similarly, as discussed above, *Takemoto* does not disclose a self-ligating orthodontic bracket. Therefore, *Takemoto* plainly does not disclose “*a flexible retaining clip adapted to secure the orthodontic wire within the wire slot in a self-ligating manner;*” much less that the retaining clip comprises a “*a first portion . . . adapted to move generally vertically within the clip slot;*” or “*a second portion extending generally horizontally from the first portion in a generally labial direction about at least a central portion of the third flange,”* as recited in Claim 24. Claim 24 is allowable for at least this additional reason.

Claim 35 is allowable for reasons analogous to those discussed above with respect to Claim 24.

Dependent Claims 25-32 and 36-43 are allowable at least because they depend from allowable independent Claims 24 and 35.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 24-32 and 35-43.

**Claims 33 and 34 are Allowable over the Proposed  
*Voudouris-Takemoto-Hanson '486* Combination**

The Examiner rejects Claims 33 and 34 under 35 U.S.C. § 103(a) as being unpatentable over *Voudouris* in view of *Takemoto* and further in view of *Hanson '486*. Applicants respectfully disagree.

Dependent Claims 33 and 34 depend from independent Claim 24. With respect to elements of independent Claim 24, the Examiner relies on the disclosure of the proposed *Voudouris-Takemoto* combination and cites portions of *Hanson '486* as allegedly disclosing certain additional elements recited in these dependent claims. However, as shown above, the proposed *Voudouris-Takemoto* combination fails to disclose, teach, or suggest each and every limitation recited in independent Claim 1. Applicants respectfully submit that these inadequacies of the proposed *Voudouris-Takemoto* combination are not remedied by the proposed *Voudouris-Takemoto-Hanson '486* combination. Dependent Claims 33 and 34 are allowable for at least these reasons.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 33 and 34.

**Conclusion**

For at least the foregoing reasons, Applicants respectfully request full allowance of all pending claims.

If the Examiner believes that a telephone conference would advance prosecution of this case in any way, the Examiner is invited to call Christopher W. Kennerly, the Attorney for Applicants, at the Examiner's convenience at (214) 953-6812.

Applicants enclose a check for \$60.00 to cover the cost of filing a one-month extension of time. No other fees are believed to be due, however, the Commissioner is hereby authorized to charge any other fees or credit any overpayments to to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.  
Attorneys for Applicants



Christopher W. Kennerly  
Reg. No. 40,675

Date: 5/22/06

**CORRESPONDENCE ADDRESS:**

at Customer No.

**05073**